

STATE OF CALIFORNIA

Energy Resources Conservation And Development Commission

In the matter of,

Application of U.S. Energy Raters Association
(USERA) for (1) Certification as a
California Home Energy Rating System (HERS)
Program Provider for Field Verification and
Diagnostic Testing on Prescriptive HVAC Alterations
(2) Approval of the USERA Data Registry under
the HERS Regulations and the 2013 Building Energy
Efficiency Standards, and (3) Approval of Enalasis,
A Third Party Quality Control Program

Order No. :

EXECUTIVE DIRECTOR
RECOMMENDATION TO
CERTIFY USERA AS A
PROVIDER FOR FIELD
VERIFICATION & DIAGNOSTIC
TESTING ON PRESCRIPTIVE
HVAC ALTERATIONS

July 22, 2014

I. Executive Summary

The Warren-Alquist Act directs the California Energy Commission¹ to establish criteria for a statewide home energy rating system.² No home energy rating services may be performed in California unless they are certified according to the program established by the Energy Commission.³ The Commission's California Home Energy Rating System (HERS) Program regulations⁴ establish requirements for home energy rating systems, for Providers (including the Providers' training and certification of Raters), and for the Energy Commission's certification of Providers. The regulations define a Provider as an organization that administers a California HERS Program.⁵

The 2013 Building Energy Efficiency Standards (Standards) require field verification and diagnostic testing of specified residential energy efficiency measures to demonstrate compliance, which must be performed by HERS Raters, certified by Energy Commission approved HERS Providers. Additionally, the Standards⁶ impose requirements for data registries for the registration of compliance documentation.⁷

U.S. Energy Raters Association (USERA) has applied for certification as a California HERS Program Provider. Certification would authorize USERA to administer a California HERS

¹ Also known as the State Energy Resources Conservation and Development Commission. See Pub. Resources Code, § 25200.

² Pub. Resources Code, § 25942, Section (a).

³ Pub. Resources Code, § 25942, Section (c).

⁴ Cal. Code Regs., tit. 20, §§ 1670-1675. Unless otherwise noted, all subsequent regulatory citations are to the Cal. Code Regs., tit. 20.

⁵ § 1671 [definitions].

⁶ Cal. Code Regs., tit. 24, pt. 6, and associated administrative regulations in pt. 1, ch. 10.

⁷ Cal. Code Regs., tit. 24, § 10-109 [data registries].

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Program overseeing HERS Raters conducting field verification and diagnostic testing for alterations to existing buildings under the 2013 Standards.⁸ USERA has also applied for approval of its residential Data Registry under the 2013 Standards.

Based upon Staff's review of USERA's application, I recommend that the Energy Commission certify USERA as a California HERS Program Provider, authorized to administer the California HERS Program overseeing HERS Raters conducting field verification and diagnostic testing for alterations to existing buildings under the 2013 Standards, and to approve the USERA HERS Data Registry as a residential data registry, subject to the attached conditions.

II. Background

USERA has applied to the Energy Commission for:

1. Certification of its California HERS Program under the HERS regulations, for demonstrating compliance with the 2013 Building Energy Efficiency Standards for alterations to existing buildings.
2. Certification of its HERS Data Registry as a residential data registry under the 2013 Building Energy Efficiency Standards on alterations to existing buildings.

III. USERA Meets the Requirements for Providers Under Sections 1672 through 1674

USERA has submitted an application demonstrating that it meets the requirements established by HERS regulations sections 1672 through 1674 for field verification and diagnostic testing to show compliance with the 2013 Standards for Heating, Ventilation, and Air Conditioning (HVAC) alterations in existing buildings.

The 2013 Building Energy Efficiency Standards are an update and revision to the 2008 Building Energy Efficiency Standards. The Energy Commission approved USERA as a HERS Provider under the 2008 Building Efficiency Standards. USERA's current application under the 2013 Standards does not affect certain aspects of USERA's prior approval under the 2008 Standards.

A. USERA Has Submitted the Required HERS Provider Program Documents

As required by section 1674(a)(1), USERA has submitted a "complete copy of all rating procedures, manuals, handbooks, Rating System descriptions, and training materials."

These materials include training materials specifically tailored according to the 2013 Standards compliance requirements and diagnostic testing procedures for residential alterations to existing buildings.

B. USERA Meets the Applicable Requirements of Section 1672

⁸ See § 1670(i) [field verification and diagnostic testing].

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As required by section 1674(a)(2), USERA has provided a detailed explanation of how its Rating System for HERS Raters it certifies meets each requirement of section 1672.

1. Section 1672(a): California Whole-House Home Energy Rating or California Home Energy Audit. A California Whole-House Home Energy Rating or a California Home Energy Audit shall be completed for a home only if the rating or audit is completed as specified by the HERS regulations and the HERS Technical Manual.⁹
2. Section 1672(b)(1): Data Collection. For ratings of existing homes that produce a California Whole-House Home Energy Rating or a California Home Energy Audit, each Rating System shall have documented procedures for site inspection and diagnostic testing of Energy-Rated Homes.
3. Section 1672(b)(2): Data Collection. For ratings of newly constructed homes that produce a California Whole-House Home Energy Rating, procedures for initial testing, sampling, resampling, and corrective action specified in the Residential Appendices to the 2013 Standards shall be followed.
4. Section 1672(b)(3): Data Collection. For ratings of newly constructed homes that establish compliance with the 2013 Standards, through field verification and diagnostic testing. Data shall be collected as specified by the Residential Appendices to the 2013 Standards. A Rater who collects such data and performs such diagnostic tests shall be certified by the Provider as a California Field Verification and Diagnostic Testing Rater.

Sections 1672(a), 1672(b)(1), 1672(b)(2), and 1672(b)(3) are not applicable in this situation, as these sections specifically address requirements for which USERA is not seeking approval.

As stated in the application, USERA will require its Raters to collect, and report to a Third Party Quality Control Program data as required by the 2013 Reference Appendices to Title 24, Part 6. (See 2013 Reference Appendix, RA2.7.)

5. Section 1672(c): Data Analysis Requirements.
6. Section 1672(d): Energy Uses Rated.
7. Section 1672(e): On-Site Renewable Generation.
8. Section 1672(f): Rating Scale.
9. Section 1672(g): Method of Calculating TDV Energy.
10. Section 1672(h): Utility Bill Analysis.
11. Section 1672(i): Recommendations for Energy Efficiency Improvements.
12. Section 1672(j): Greenhouse Gas Emissions.
13. Section 1672(k): HERS Report.

Sections 1672(c) through (k) are not applicable in this situation, as these sections specifically address requirements for which USERA is not seeking approval.

⁹ Publication CEC-700-2008-012, December 2008. See §§1670, 1671.

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14. Section 1672(l): Field Verification and Diagnostic Testing. The Provider and Rater shall provide field verification and diagnostic testing of energy efficiency improvements as a condition for those improvements to qualify for the Title 24, Part 6, Building Energy Efficiency Standards compliance credit, as required by Title 24, Part 6, Building Energy Efficiency Standards and Reference Appendices.

USERA's application states that it will conduct the appropriate oversight and quality assurance inspections of USERA-certified HERS Raters to ensure that said Raters are providing complete and accurate field verification and diagnostic testing as required by Title 24, Part 6, Building Energy Efficiency Standards for alterations including the associated Reference Appendices.

15. Section 1672(m): Provider and Rater Conduct and Responsibility. Providers and Raters shall not knowingly provide untrue, inaccurate, or incomplete rating information or report rating results that were not conducted in compliance with these regulations. Providers and Raters shall not knowingly accept payment or other consideration in exchange for reporting a rating result that was not in fact conducted and reported in compliance with these regulations.

In addition to the oversight and quality assurance inspections indicated under #14, above, all HERS Raters certified by USERA will be required to agree to and sign Rater Agreements and Registry Agreements that make clear the conduct and responsibility requirements for USERA-certified HERS Raters.

C. Meets The Applicable Requirements of Section 1673

Section 1674(a)(3), requires the following detailed explanation of how each applicable part of Section 1673 is met.

1. Section 1673(a)(1): Each Provider's training program shall include classroom and field training of applicants for California Whole-House Home Energy Rater certifications, incorporating training in analysis, theory, and practical application in areas specified under section 1673, subdivisions (a)(1)(A)-(P).

Section 1673(a)(1) only applies to the extent that it is referred to in the sections under which USERA is seeking approval, such as 1673(a)(4) and 1673(a)(7).

2. Section 1673(a)(2): California Home Energy Inspector applicants shall be required to be trained by the Provider in specified areas.
3. Section 1673(a)(3): California Home Energy Analysts applicants shall be required to be trained by the Provider in specified areas.

Sections 1673(a)(2) and (3) are not applicable in this situation, as these sections specifically address Whole-House Home Energy Rater requirements for which USERA is not seeking approval.

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4. Section 1673(a)(4): California Verification and Diagnostic Testing Raters . . . shall be required to receive specific training in Sections 1673(a)(1)(H) and (K) through (M) and general training in Sections 1673(a)(1)(A) to (G) and (P).

USERA' application complies with this section as it includes training materials for Rater certification for field verification and diagnostic testing for alterations to existing buildings. This curriculum sufficiently includes all of the content to provide classroom and field training and certification on the topics required in Section 1673(a).

5. Section 1673(a)(5): The training for all certifications and Raters shall include thorough instruction in using the Provider's Rating System and database.

USERA's training curriculum includes thorough instruction on the use of the USERA Rating System and database. This includes but is not limited to instruction in the correct completion and registration of compliance documentation, the correct use of diagnostic testing equipment, description of conflict of interest provisions, HERS Rater ethics, and the correct use of the USERA Registry.

6. Section 1673(a)(6): The training shall require California Whole-House Home Energy Rater applicants to satisfactorily perform a rating for at least one home that includes field verification and diagnostic testing in the presence and under the direct supervision of the Provider's trainer or Quality Assurance Reviewer. The training shall require California Field Verification and Diagnostic Testing Rater applicants to satisfactorily perform field verification and diagnostic testing for at least one home in the presence and under the supervision of the Provider's trainer or Quality Assurance Reviewer. The Provider shall review and approve these ratings for accuracy and completeness.

For this specific approval process, this section is only applicable to the quality assurance evaluation of Field Verification and Diagnostic Testing Rater applicants, and not Whole House Home Energy Rater applicants, as USERA is not seeking approval for the training or certification of California Whole-House Home Energy Raters. USERA has developed a Quality Assurance Program as required by Section 1673(i) and has a staff of Quality Assurance Reviewers, all of whom are certified HERS Raters with extensive field experience, who will provide the quality assurance oversight of HERS Raters conducting field verification and diagnostic testing.

7. Section 1673(a)(7): The Provider shall require each applicant to take an Energy-Commission approved written and practical test that demonstrates his or her competence in all subjects specified in Section 1673(a)(1). The Provider shall retain all results of these tests for five years from the date of the test.

Section 1673(a)(7) has been met by the USERA application, which includes Commission-approved training materials and tests for Rater certification for Field Verification and Diagnostic Testing on alterations to existing buildings.

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8. Section 1673(a)(8): Each Provider may establish an Energy Commission-approved challenge test that evaluates competence in each area addressed by the Provider's training program.

Section 1673(a)(8) has been met by the USERA application, which includes Commission-approved training materials and tests for Rater certification for field verification and diagnostic testing on alterations to existing buildings.

9. Section 1673(a)(9): Programs incorporating Building Performance Contractors shall provide specific training in all areas specified in Section 1673(a)(1). These programs shall be submitted by the Provider for individual review and approval by the Energy Commission.

Section 1673(a)(9) is not applicable in this situation, as this section specifically addresses the requirements for Building Performance Contractor certification, for which USERA is not seeking approval.

10. Section 1673(b): Rater Agreements. As a condition of Rater registry under Section 1673(d), each Provider shall ensure that a Rater applicant who has met the applicable requirements of Section 1673(a) has entered into an agreement with the Provider to provide home energy rating and field verification and diagnostic services in compliance with these regulations.

USERA has a revised its Rater Agreement for the 2013 Standards which will be required to be signed by all USERA certified Raters once USERA obtains Energy Commission approval of its California HERS Program rating system.

11. Section 1673(c): Building Performance Contractor Agreements.

This section is not applicable in this situation, as this section specifically addresses the requirements for Building Performance Contractor agreements, a category for which USERA is not seeking approval.

12. Section 1673(d): Rater and Building Performance Contractor Registry.

USERA is required to ensure that its Raters meet all applicable requirements of Sections 1673(a) and 1673(b). It has submitted a training curriculum as required by Section 1673(a) and Rater Agreements as required by Section 1673(b). This application is not applicable to the Building Performance Contractor designation.

13. Section 1673(e): Data Maintenance.

The application shows that the database, web-based interface, and reporting functionality developed by USERA fulfill all of the data retention requirements of Section 1673(e). Per these requirements, data will be retained for a minimum of ten years.

14. Section 1673(f): Field Verification and Diagnostic Testing Evaluation.

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The database, web-based interface, and reporting functionality developed by USERA addresses all of the data retention requirements of Section 1673(e)(2) for a minimum of 10 percent random sampling of homes actually field verified and diagnostically tested annually, or 500 such homes annually, whichever is less. USERA will provide this information to the Commission annually.

15. Section 1673(g): Data Submittal. Upon the Energy Commission's request, but not more frequently than annually, a Provider shall submit to the Energy Commission information recorded pursuant to Section 1673(e) and provide the Energy Commission ongoing access to the Provider's database.

The application shows that USERA will submit to the Energy Commission the information collected pursuant to Section 1673(e) and will provide the Energy Commission with ongoing access to the database maintained pursuant to that section.

16. Section 1673(h): Training Materials Retention. Each Provider shall retain for at least five years after the last date they are used, at least one copy of all materials used to train Raters.

The application shows that USERA will retain, for at least five years after the date they are used, at least one copy of all materials used to train Raters.

17. Section 1673(i): Quality Assurance. Each Provider shall have a quality assurance program meeting the required elements.

The application shows that USERA has developed a Quality Assurance Program that meets the requirements of Section 1673(i) and has a designated Quality Assurance Reviewers, all of whom are experienced HERS Raters. USERA has also developed a Complaint Response System in accordance with the requirements of Section 1673(i)(5).

18. Section 1673(j): Conflict of Interest.

The HERS regulations require that Providers be "independent entities" from Raters. Section 1673, Section (j), states:

- (1) Providers shall be independent entities from Raters.
- (2) Providers and Raters shall be independent entities from the builder and from the subcontractor installer of energy efficiency improvements field verified or diagnostically tested.
- (3) Providers and Raters shall be independent entities from any firm or person that performs work on the home for a California Home Energy Audit or a California Whole-House Home Energy Rating.¹⁰

¹⁰ §1673(j)(3) exempts raters who are working as or for a Building Performance Contractor approved as specified in §1674(e) of the regulations and in the HERS Technical Manual, from being independent entities from firms or persons working on the home. This exception does not apply to California Field Verification and Diagnostic Testing Raters performing field verification and diagnostic testing of newly constructed homes or alterations to existing homes to verify compliance with the requirements of Title 24, Part 6.

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Section 1671 defines “independent entity” and “financial interest” as follows:

Independent Entity means having no financial interest in, and not advocating or recommending the use of any product or service as a means of gaining increased business with, firms or persons specified in Section 1673(j).

Financial Interest means an ownership interest, debt agreement, or employer/employee relationship.¹¹

USERA’s application acknowledges and fully supports the conflict-of-interest rules and intends to comply with the requirements of Section 1673(j).

19. Section 1673(k): Improvement Measures Cost Database. Each Provider shall develop and maintain a database of the cost of implementing the efficiency improvement measures specified in the HERS Technical Manual. The database shall contain statewide standardized cost values and regional adjustment factors.

This Section 1673(k) pertains to Whole-House HERS Ratings, for which USERA is not seeking approval.

D. Rating System - Third Party Quality Control Program

1. Section 1674(e) Special Approval. Rating Systems using Third Party Quality Control programs as described in the Residential Appendices RA2.4.3 and RA2.7 for field verification and diagnostic testing procedures to verify compliance with Title 24, Part 6, shall also be separately approved by the Energy Commission.

The Third Party Quality Control Program, Enalasy, shall be considered for approval as part of the rating system of a HERS Provider, USERA, which is certified as specified in the Commission’s HERS Program regulations, section 1674. A Third Party Quality Control Program may be added to the rating system through the recertification of a certified HERS Provider as specified by section 1674(e).

Enalasy, as a Third Party Quality Control Program (TPQC), will collect data from participating installers for each installation and to provide data checking analysis and to evaluate the validity, accuracy of the data and to independently determine whether compliance has been achieved with the 2013 Standards.

¹¹ Section 1671 states that “financial interest” does not include ownership of less than five percent of the outstanding equity securities of a publicly traded corporation.

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E. USERA Contact Information

U.S. Energy Raters Association (USERA)
676 W. Pullman Road, #339
Moscow, ID 83843

Enalasys Corporation
250 Avenida Campillo
Calexico, CA 92231

F. Articles of Incorporation and By-Laws Provided

USERA's application has provided its articles of incorporation and by-laws.

G. Identification of USERA's Owners, Parents, Subsidiaries, and Affiliates.

USERA's application has identified its owner and Chief Executive Officer as Don Charles.
Enalasys application has identified its owner and Chief Executive Officer as Eric Taylor.

H. Statement of Accuracy

The application shows that USERA has stated that ratings are accurate, consistent, and uniform. The other requirements of Section 1674, Section (a)(8), regarding utility bill estimates and recommendations on cost-effective energy efficiency improvement measures are not applicable to this application.

The application shows that Enalasys has stated that ratings are accurate, consistent, and uniform. The other requirements of Section 1674, Section (a)(8), regarding utility bill estimates and recommendations on cost-effective energy efficiency improvement measures are not applicable to this application.

I. Statement of Compliance

The application shows that USERA has stated that it understands and will not knowingly fail to comply with the requirements of these regulations.

The application shows that Enalasys has stated that it understands and will not knowingly fail to comply with the requirements of these regulations.

J. Declaration of Veracity

USERA has certified under penalty of perjury that all statements in the application are true.

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IV. USERA's Residential Data Registry Meets the Applicable Requirements

As described below, USERA's application demonstrates that the HERS Data Registry meets the requirements of a residential data registry in Cal. Code Regs., tit. 24, section 10-109 and Joint Reference Appendix JA7, of the 2013 Building Energy Efficiency Standards.

In order to ensure continued compliance with the above requirements, USERA has agreed to the attached conditions of certification to incorporate the additional compliance documentation and validation of XML files into its HERS Data Registry.

K. USERA's Application Meets the Applicable Requirements of Section 10-109(i)

USERA meets data registry, related data input software and electronic repositories requirements within Cal. Code Regs., tit. 24, section 10-109(i):

USERA's application demonstrates compliance with the necessary compliance documentation prescribed by the 2013 Standards. USERA will program its HERS Data Registry with all the residential alteration forms as required through its electronic document repository when the forms are registered.

L. USERA's Application Meets the Applicable Requirements of Reference Joint Appendix JA-7

Contingent upon approval of a document repository by the Energy Commission, Reference Joint Appendix JA-7 requires export of a copy of the registered compliance document to the Energy Commission Document Repository. The export consists of an XML file which is validated against an XML schema. USERA's application demonstrates compliance with XML validation for Alterations forms.

V. Conclusion


After considering the application, including USERA's agreement to the Conditions of Certification, I find that USERA meets the requirements described above for Providers for field verification and diagnostic testing for alterations to existing buildings as required by the 2013 Building Energy Efficiency Standards, California Code of Regulations, Title 24, Part 6, and associated administrative regulations in Part 1, Chapter 10, and the California Home Energy Rating System Program regulations, Title 20, section 1670 et seq., including but not limited to the applicable provisions in sections 1672 and 1673.

After considering the application, including Enalasy's agreement to the Conditions of Certification, I find that Enalasy meets the requirements for Third Party Quality Control Program to existing residential buildings as required by the 2013 Building Energy Efficiency Standards, California Code

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of Regulations, Title 24, Part 6, and associated administrative regulations in Part 1, Chapter 10, and the California Home Energy Rating System Program regulations, Title 20 sections 1670 through 1675, including but not limited to the applicable provisions in sections Title 20 section 1674(e).

Accordingly, I recommend that the Energy Commission confirm these findings and certify USERA as a California HERS Program Provider for field verification and diagnostic testing for prescriptive alterations to existing buildings, and include Enalasy as a Third Party Quality Control Program for alterations to existing residential buildings.



ROBERT P. OGLESBY
Executive Director
California Energy Commission

7-11-14
Date